exists on the sky area herein indicated, nor is there on the plates any abnormal appearance to which it is necessary here to draw special attention. It is a region where the stars are not exceptionally numerous, and they are mostly faint.

Crowborough Hill, Sussex:
1892 *April* 12.

Photographs of the Region of the "Crab" Nebula, 1 *M Tauri.*

By Isaac Roberts, F.R.S.

Two photographs of the region of the nebula 1 M *Tauri*, R.A. 5^h 29^m, Dec. 21° 57′ N., are now presented, which have been enlarged from a negative taken with the 20-inch reflector on 1892, February 2, and exposure of three hours. One of the enlarged photographs is to the scale of one centimetre to four minutes of arc, and covers a sky area of ninety-two minutes of arc in Right Ascension by 112 minutes in Declination. The other photograph is enlarged to the scale of one centimetre to forty seconds of arc, and covers an area of nine minutes in diameter. The nebula measures 340 seconds of arc in extreme length by 260 seconds in breadth, and I counted sixteen stars involved in it.

The nebula is not symmetrical in form, and has a faint, undefined, boldly indented margin, with a large projecting limb on the south preceding side. It is oval in general outline, with the major axis in south following and north preceding direction, and on the north following side is a large deep embayment with little nebulosity in it, and there is also a smaller bay, but with nebulosity partly filling it. The negative shows dense massive cloudiness in parts of the nebula, with fainter areas between them, but they are too dense to print so as to be visible in detail on the enlargements.

I have not seen any drawing of this nebula that conveys even approximately an idea of its form as it is shown on the photograph, and there is no indication of the filamentous projections that are shown on some drawings, and which, if they had a real existence, would undoubtedly be shown.

The stars in the region of the nebula are very numerous, and when viewed on the negative the eye readily arranges them into festoons and wreaths of many patterns, but an enlargement, even to three and a half times, in great measure modifies this effect of perspective, which a larger magnifying power would dissipate.

On the Orbit of γ Coronæ Australis. By J. E. Gore.

Recent measures of the position-angle of this well-known southern binary star show clearly that the distance is now slowly but steadily increasing, and that the period will prove to be considerably longer than has been hitherto supposed. I find that the period given in my paper in the *Monthly Notices* for January 1886 is much too short, and the elements there given do not represent recent measures satisfactorily either in angle or distance. I have therefore re-computed the orbit by the Glasenapp-Kowalsky method, using all available measures, and now find the following provisional elements:—

Elements of γ Coronæ Australis.

P = 154·41 years	$\Omega = 77^\circ\ 14'$
T = 1876·84	λ = 175 17
$e = 0{\cdot}4244$	$a = 2''{\cdot}55$
$i = 35^\circ\ 35\frac{1}{2}'$	$\mu = -2^\circ{\cdot}3314$

The following is a comparison between the measures and the positions computed from the above elements:—

Epoch.	Observer.	θ_o	θ_c	$\theta_o-\theta_c$	ρ_o	ρ_c	$\rho_o-\rho_c$
		°	°	°	″	″	″
1834·47	Sir J. Herschel	37·1	38·0	−0·9	...	2·81	...
1835·55	,,	36·8	36·4	+0·4	...	2·77	...
1836·43	,,	34·5	35·1	−0·6	...	2·73	...
1837·43	,,	32·7	33·6	−0·9	2·66	2·68	−0·02
1847·32	Jacob	14·1	15·0	−0·9	2·30	2·20	+0·10
1850·46	,,	5·9	7·2	−1·3	2·29	2·05	+0·24
1851·54	,,	4·5	4·4	+0·1	2·26	1·99	+0·27
1852·49	,,	2·2	1·6	+0·6	1·9	1·95	−0·05
1853·52	,,	359·0	358·5	+0·5	1·83	1·90	−0·07
1854·26	,,	356·2	356·2	0·0	1·71	1·87	−0·16
1856·44	,,	349·4	348·8	+0·6	1·67	1·78	−0·11
1857·44	,,	347·4	345·2	+2·2	1·61	1·74	−0·13
1858·20	,,	343·4	342·4	+1·0	1·53	1·71	−0·18
1859·72	Powell	338·1	336·4	+1·7	1½ est.	1·66	...
1861·69	,,	328·8	328·1	+0·7	...	1·60	...
1862·27	,,	325·5	325·6	−0·1	1½ est.	1·58	...
1863·84	,,	318·1	318·3	−0·2	...	1·56	...
1870·19	,,	286·9	287·4	−0·5	.	1·47	...
1875·65	Schiaparelli	257·4	259·6	−2·2	1·45	1·46	−0·01